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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,903	03/06/2002	Minoru Hato	MAT-8230US	9193

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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,903

Applicant(s)

HATO ET AL.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/8/2004 has been entered. Claims 1-7, 9 and 10 are currently pending in the application. An action on the RCE follows:

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Inubushi et al. (USPN: 5,901,834), hereinafter Inubushi.

As per claims 1, 4 and 5, the claimed invention reads on the Inubushi reference as follows: Inubushi discloses a lighting apparatus used for operating electronic devices such as portable telephones (see col. 1, lines 6-8, and fig. 23), comprising a lighting unit (see fig. 1) including a switch device (a device including elements 20, 23 and 25, best seen in fig. 3), a pushbutton (a key button 4, fig. 1) provided to above the switch device (20, 23, 25) and an EL

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device (an EL panel 26, fig. 1), and a control circuit (a printed circuit board 21) coupled to the lighting unit and applying an ac voltage between electrodes of the EL device, for controlling light emission from the EL panel (26) to illuminate the pushbutton (4) (see col. 1, line 64 through col. 2, line 32). As noting in figs. 1 and 3, Inubushi further teaches the EL device (26) comprising a light emitting section corresponding to the pushbutton (4) and including an optically transparent electrode layer (a transparent electrode layer 13, fig. 3), a backplate layer (a rear electrode layer 16), an optically transparent insulating base (a film click-board 24, fig. 3, col. 6, lines 28-31), a first light emitting layer (a light emitting layer 14) and a dielectric layer (15). As noting in figs. 1 and 3, Inubushi further teaches that, while the pushbutton (4) moves and extends through the EL device (26), the EL device (26) remains stationary. Accordingly, the elements in the claims are read in the Inubushi reference.

4. Claims 1, 4, 5, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Howell et al. (USPN: 6,590,508 B1), hereinafter Howell.

As per claims above, the claimed invention reads on the Howell reference as follows: Howell discloses a lighting apparatus used for operating electronic devices such as portable computers (see col. 1, lines 5-7, and fig. 1), comprising a lighting unit (see fig. 3) including a switch device (a device including elements 34, 48, 52 and a bottom portion of the shaft 40 which is in the aperture 36 or in the idle position, as shown in fig. 3), a pushbutton (a key including elements 29, 42 and a top portion of the shaft 40 which is not in the aperture 36 or is in the idle position, as shown in fig. 3) provided to above the switch device and an EL device (an EL panel 32, see fig. 3, col. 3, lines 21-24), and a control circuit (a circuit including an AC power supply as disclosed at col. 5, lines 1-32) coupled to the lighting unit, for controlling light emission from

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the EL panel (32) to illuminate the pushbutton. As noting in figs. 3 and 8, Howell further teaches the EL device (32) comprising a light emitting section corresponding to the pushbutton and including an optically transparent electrode layer (a transparent front electrode layer 58, fig. 8), a backplate layer (a back electrode layer 68), an optically transparent insulating base (a substrate 56, fig. 8), a first light emitting layer (an EL material layer 64) and a dielectric layer (66). See col. 4, line 31 through col. 5, line 1. Further, as noting at col. 3, lines 50-54, and by virtue of the structure of the lighting apparatus as shown in fig. 3, Howell discloses the switch device including a movable contact (a bottom portion of the shaft 40) and the EL device (32) located between a top of the pushbutton and the movable contact. Accordingly, the elements in the claims are read in the Howell reference.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inubushi, and further in view of Shibamoto et al. (USPN: 6,346,973 B1), hereinafter Shibamoto.

Regarding to claim 2 as applied to claim 1 above, as noting in fig. 23, Inubushi further teaches the portable telephone including a display device (a LCD device 3) placed beside the pushbutton. Inubushi does not disclose expressly the EL device (26) comprising another light emitting section corresponding to the display device (3). Accordingly, Inubushi discloses all the

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claimed limitations except for another light emitting section corresponding to the display device as presently claimed.

However, Shibamoto expressly teaches the EL device (2) comprising another light emitting section (a section which is a part of EL panel 2 and disposed directly below the LCD display device 21, see fig. 2) corresponding to a display device (a LCD device 21). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide another light emitting section in the EL device of Inubushi, in view of the teaching in the Shibamoto reference, because this would provide both the display device and the operational panel illuminated by a single thin EL device, thereby simplifying a mounting structure and reduce the size of the electronic device, as taught by Shibamoto (see col. 1, lines 33-53).

Regarding to claim 6, because this claim recites the limitations, which are recited in claims 2 and 4, this claim is therefore rejected for the same reasons as set forth in claims 2 and 4 above.

Regarding to claim 7, because this claim recites the limitations, which are recited in claims 6 and 5, this claim is therefore rejected for the same reasons as set forth in claims 6 and 5 above.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inubushi as applied to claim 1 above, and further in view of Barrow et al. (USPN: 4,719,385), hereinafter Barrow.

Regarding to claim 3 as applied to claim 1 above, as noting in fig. 3, Inubushi further teaches the first light emitting layer (14) provided between the optically transparent electrode layer (13) and the backplate layer (16). Accordingly, Inubushi discloses all the claimed

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limitations except for an optically transparent intermediate electrode layer and a second light emitting layer, in the manner as recited in claim 3.

However, Barrow discloses expressly an EL device comprising an optically transparent intermediate electrode layer (16) laminated between the optically transparent electrode layer (15) and the backplate layer (26), a first light emitting layer (12) provided between the optically transparent electrode layer (15) and optically transparent intermediate electrode layer (16), and a second light emitting layer (22) provided between the optically transparent intermediate electrode layer (16) and the backplate layer (26). See fig. 2, col. 2, lines 35-64. Barrow further teaches the first light emitting layer (12) emitting light in different color for the second layer (22), thereby providing a reliable, high performance multi-color device (col. 1, lines 57-59, and col. 3, lines 18-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide an optically transparent intermediate electrode layer and a second light emitting layer, in the EL device of Inubushi, in view of the teaching in the Barrow reference, because this would provide a reliable, high performance multi-color device, as taught by Barrow (col. 1, lines 57-59, and col. 3, lines 18-22).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howell as applied to claim 1 above, and further in view of Barrow.

Regarding to claim 3 as applied to claim 1 above, as noting in fig. 8, Howell further teaches the first light emitting layer (64) provided between the optically transparent electrode layer (58) and the backplate layer (68). Accordingly, Howell discloses all the claimed limitations except for an optically transparent intermediate electrode layer and a second light-emitting layer, in the manner as recited in claim 3.

However, Barrow discloses expressly an EL device comprising an optically transparent intermediate electrode layer (16) laminated between the optically transparent electrode layer (15) and the backplate layer (26), a first light emitting layer (12) provided between the optically transparent electrode layer (15) and optically transparent intermediate electrode layer (16), and a second light emitting layer (22) provided between the optically transparent intermediate electrode layer (16) and the backplate layer (26). See fig. 2, col. 2, lines 35-64. Barrow further teaches the first light emitting layer (12) emitting light in different color for the second layer (22), thereby providing a reliable, high performance multi-color device (col. 1, lines 57-59, and col. 3, lines 18-22). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to provide an optically transparent intermediate electrode layer and a second light emitting layer, in the EL device of Howell, in view of the teaching in the Barrow reference, because this would provide a reliable, high performance multi-color device, as taught by Barrow (col. 1, lines 57-59, and col. 3, lines 18-22).

Response to Arguments

9. Applicant has amended the specification to overcome the objection of the Office Action dated 8/16/2004. The objection to the specification is hereby withdrawn.

10. Applicant has amended the claim 3 to overcome the objection to claim 3 of the Office Action dated 8/16/2004. The objection to the claim 3 is hereby withdrawn.

11. The claim objection and the rejections under 35 USC 112, first paragraph, to claim 8 in the last Office Action dated 8/16/2004, have been rendered moot in view of the cancellation of claim 8. The claim objection and the rejections under 35 USC 112, first paragraph, to claim 8, in the last Office Action dated 8/16/2004 are hereby withdrawn.

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12. Applicants' arguments, "The Office Action relies on Figure 24 of Inubushi in rejecting Applicants' claims ... of record", see page 6, last 13 lines, of the amendment filed on 11/8/2004, with respect to feature newly added to all independent claims, have been considered but they are not found persuasive, because Inubushi discloses several embodiments and the newly added feature is read in the first embodiment as illustrated by figs. 1-3. See the new ground of rejection above.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JHN

December 8, 2004

A handwritten signature in black ink, appearing to read 'JH Nguyen', with a horizontal line extending to the right.

Jimmy H. Nguyen

Primary Examiner

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